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A NEW SPECIES OF *PHYLLANTHUS* (EUPHORBIACEAE) FROM THE CAYMAN ISLANDS

GRADY L. WEBSTER AND GEORGE R. PROCTOR

ABSTRACT

Phyllanthus caymanensis Webster & Proctor is described from specimens collected in the Cayman Islands. This species resembles Mesoamerican species such as *P. mcvaughii* and *P. mocinianus* rather than any of the West Indian taxa of sect. *Nothoclema*. It is the first endemic species of sect. *Nothoclema* recorded from the West Indies.

Key Words: Euphorbiaceae, *Phyllanthus*, West Indies

In the revision of the West Indian species of *Phyllanthus*, Webster (1957) recorded only 2 species of sect. *Nothoclema*: the widespread *P. acuminatus* Vahl, and *P. subglomeratus* Poir. in the Lesser Antilles. It was therefore a distinct surprise when the junior author discovered a third species in the Cayman Islands. Although it is very similar in aspect to the Mesoamerican *P. mocinianus* Baillon, the Cayman plant clearly represents a previously undescribed species.

Phyllanthus caymanensis Webster & Proctor, *sp. nov.*, ab aliis speciebus sect. *Nothoclemae* differt ramulis glabris simpliciter pinnatiformibus, foliis ovatis subacutis conspicue venosis, antheris compressis subacutis, pollinis grana striato-reticulata.

Glabrous shrub c. 2.5 m high; twigs terete, 1–2.5 mm thick, greyish. Cataphylls \pm scarious, indurate, subpersistent; stipules triangular-ovate, c. 1.2–1.5 mm long and 1.2 mm broad; blade lanceolate, c. 1–1.2 mm long, narrower. Deciduous branchlets all simple (pinnatiform), 3–7 cm long, with 6–10 nodes; axes greenish, angled, slender (less than 1 mm thick). Leaves with stipules

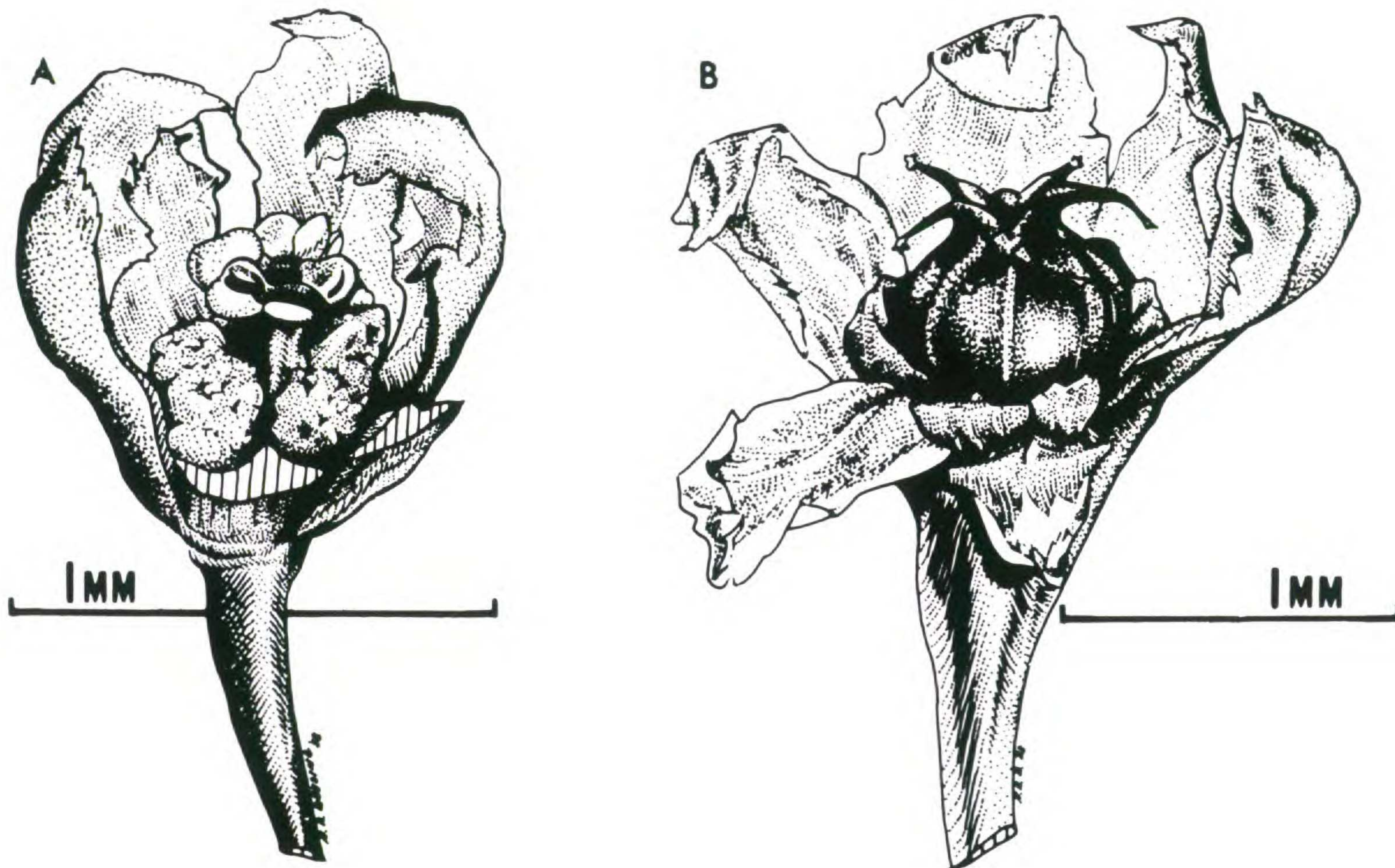


Figure 1. Flowers of *Phyllanthus caymanensis*. A. Staminate flower. B. Pistillate flower.

lanceolate, acuminate, becoming scarious and subpersistent, 0.8–1 mm long; petioles 1–2 mm long; blades chartaceous, ovate, obtusely to acutely pointed at tip, obtusely rounded to slightly subcordate at base, mostly 1.5–2.7 cm long, 1.2–2.1 cm broad, above olive green (paler beneath), with midrib, major lateral veins (c. 5–7 on a side) and veinlet reticulum distinctly prominulous (on both faces); margins plane.

Monoecious; cymules axillary on branchlets, bisexual, with one central ♀ and several lateral ♂ flowers. Staminate flowers: pedicel slender, 5–10 mm long; calyx-lobes 6, biseriate, erect, elliptic to obovate, obtuse, with paler margins, 1.3–1.7 mm long, 0.7–1.2 mm broad; disk segments 3, massive, bilobed, pitted, c. 0.6–0.8 mm across; stamens 3, filaments completely connate into a column 0.3–0.5 mm high; anthers triangular-ovate, acute or subacute, flattened, c. 0.4 mm long and 0.5 mm broad, fused by the connectives, dehiscing horizontally; pollen grains subglobose, c. 18–22 μm in diameter, 3-colporate, not syncolpate, colpi distinctly marginate, exine with even and relatively fine vermiculate ornamentation pattern. Pistillate flowers; pedicel slender (not dilated distally), becoming 8–12 mm long in fruit; calyx-lobes 6, biseriate, triangular-lanceolate, acute, 1.4–1.7 mm long; disk 3-lobed, lobes c. 0.7–0.8 mm across; ovary smooth, of 3 carpels; styles free, spreading, c. 0.4 mm long, bifid, branches slender. Capsules oblate, prominently veiny, greenish, 4–4.5 mm across; seeds 1.9–2 mm long, distinctly angled, light brownish, nearly smooth.

Type: Cayman Islands, Cayman Brac, Foster Land Distr., rocky woodland c. 0.7 mi NW of Pollard Bay, alt. c. 100 ft, 7 Aug. 1975, *G. R. Proctor 35151* (JAM, Holotype). Additional collection examined: Cayman Islands, Little Cayman, sandy woodland just N of W end of the air strip, 7 Aug. 1975, *G. R. Proctor 35145* (JAM).

This species represents an exciting novelty because it is the first endemic species of sect. *Nothoclema* to be discovered in the West Indies. In appearance, the specimen suggests a small-leaved form of the Mexican species *P. mocinianus* Baillon. However, in most floral characters (Fig. 1), especially the anther shape, it is closer to *P. mcvaughii* Webster of Chiapas and northern Central America. It differs from that species, though, in its glabrous conspicuously veined leaves, slender pistillate pedicel, and smaller seeds. Curiously, the pollen of the Cayman plant, as seen in scanning micrographs (Fig. 2), is much closer to *P. mocinianus* in its relatively fine

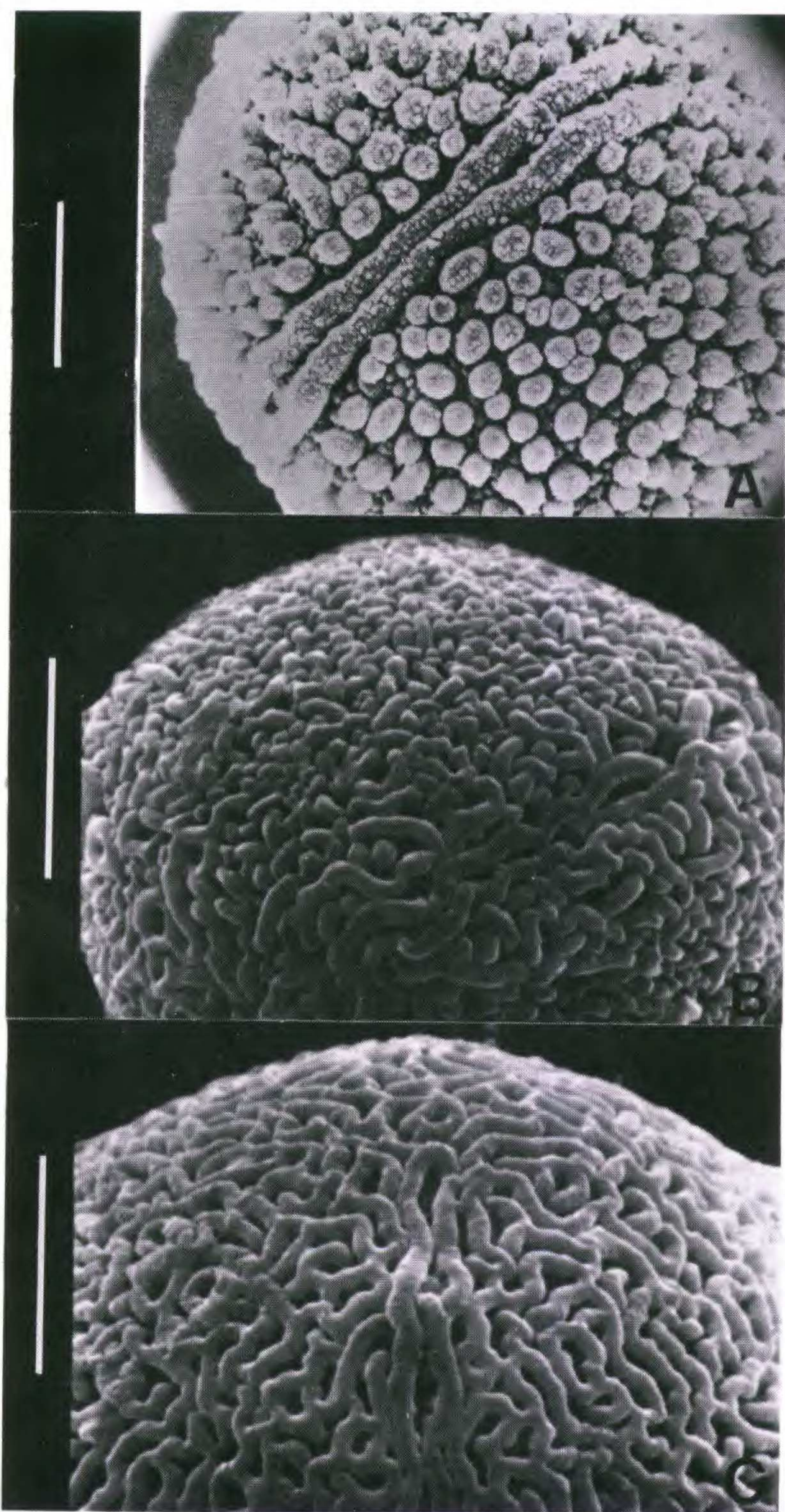


Figure 2. Pollen grains of some species of *Phyllanthus* sect. *Nothoclema*. A. *Phyllanthus mcvaughii*. B. *Phyllanthus mocinianus*. C. *Phyllanthus caymanensis*. Scale bar = 4 μm .

vermiculate sculpturing than it is to the coarser, more irregular ornamentation of *P. mcvaughii* (see also figures in Webster, 1967).

Overall, *P. caymanensis* thus shares some characters with both *P. mcvaughii* and *P. mocinianus*, but is clearly distinct from either of them. It remains an intriguing phytogeographical puzzle that sect. *Nothoclema* should be represented by an endemic Antillean species only on the Cayman Islands.

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G. L. W.
DEPARTMENT OF BOTANY
UNIVERSITY OF CALIFORNIA
DAVIS, CALIFORNIA 95616

G. R. P.
JARDIN BOTANICO NACIONAL
AVENIDA LOS TRINITARIOS
SANTO DOMINGO, REPUBLICA DOMINICANA